—96. The method of claim 25, wherein each spot on the array is of a size produced by a dispensed volume of from 10^{-10} to 10^{-6} L.—

—97. The method of claim 31, wherein each spot on the array is of a size produced by a dispensed volume of from 10^{-10} to 10^{-6} L.—

—98. The method of claim 40, wherein each spot on the array is of a size produced by a dispensed volume of from 10^{-10} to 10^{-6} L.—

—99. The method of claim 40, wherein each spot on the array is of a size produced by a dispensed volume of from 10^{-10} to 10^{-6} L.—

—100. An array produced by the method of claim 3, wherein the array of sample material contains matrix for mass spectrometry deposited at each location in the array.—

—101. An array produced by the method of claim 5.—

Please amend claims ~~1, 3, 6, 11, 25, 27, 31, 40, 70, 73, 76, 79 and 87~~ as follows:

1. (Twice Amended) A method for forming an array of a sample material on a surface of a substrate and analyzing the sample material in the resulting array, comprising:

providing a vesicle that has an interior chamber containing a fluid comprising a solvent containing the sample material;

[without contacting the surface with the vesicle,] disposing said vesicle adjacent to a first location on said surface of the substrate without contacting the surface with the vesicle;

providing mechanical pressure to the interior of the vesicle to eject from said chamber a nanoliter volume of the fluid to dispense said fluid at said first location of said surface of the substrate;[and]

moving said vesicle to each of a set of positions adjacent to the surface of the substrate, whereby a nanoliter volume of fluid is dispensed at each location of said set forming an array of sample material on the substrate; and

performing mass spectrometry analysis of the sample material at each location of the array.

3. (Twice Amended) A method of claim 1, wherein the sample material comprises a matrix material for mass [spectroscopy] spectrometry.

6. (Amended) A method of claim 1 wherein the sample material comprises solvent containing an analyte material and a matrix material for mass [spectroscopy] spectrometry.

11. (Twice Amended) A method of claim 1, wherein the vesicle is part of a vesicle assembly having a plurality of vesicles arranged into a matrix for dispensing fluid to a first plurality of locations onto said substrate surface.

25. (Twice Amended) A method for analyzing a material, comprising:

providing a vesicle comprising a fluid [a] containing the material in a solvent;

[without contacting the surface with the vesicle,] disposing said vesicle adjacent to a first location of a surface of [the] a substrate without contacting the surface with the vesicle;

delivering a defined and controlled nanoliter volume of the fluid at the first location of said surface of the substrate;

moving said vesicle to a second position next to the first location on said surface of the substrate to dispense a defined and controlled volume of said material along an array of locations on said substrate surface to form an array of the material; and

performing mass spectrometry analysis for said material at each location of said array.

27. (Twice Amended) A method of claim 25, including the steps of providing a vesicle having an interior chamber suitable for holding the fluid wherein the material comprises a matrix material for mass [spectroscopy] spectrometry.

31. (Twice Amended) A system for forming an array of a sample material on a surface of a substrate and analyzing the sample material in the array, comprising:

a vesicle having a distal end suitable for carrying a nanoliter of fluid;

a movable arm having a distal portion mounted to move said vesicle;

a controller for moving said arm to dispose said vesicle adjacent to a first location on said surface of the substrate and for controlling said vesicle to provide a nanoliter volume of the fluid at said first location of said surface of the substrate; and

a [diagnostic tool] mass spectrometer for analyzing said material deposited on said surface of said substrate[by generating a composition signal representative of the chemical composition of said material].

40. (Amended) A method for dispensing nanoliter volumes of a material as an array onto the surface of a substrate, comprising the steps of:

(a) providing an assembly having a plurality of vesicles arranged in the form of array for dispensing a liquid therefrom, wherein each vesicle has an interior chamber containing a fluid containing the material;

(b) [without contacting the surface with a vesicle,] aligning the vesicles at a first set of locations adjacent to the surface of the substrate without contacting the surface with the vesicles;

(c) using mechanical pressure, controlling each of the chambers to eject a nanoliter volume of the fluid from each vesicle onto the surface of the substrate aligned with the vesicles, whereby an array of the fluid is deposited on the surface of the substrate;

(d) providing the resulting substrate with the array of material deposited thereon to a mass spectrometer for determining information representative of the composition of the deposited material.

70. (Amended) A method for dispensing nanoliter volumes of a material as an array on the surface of a substrate and analyzing the material in the array, comprising the steps of:

(a) providing a pin assembly having a plurality of elongated vesicles arranged as an array for dispensing a liquid therefrom, wherein each vesicle comprises a solid shaft of material having an end for retaining a nanoliter volume of fluid;

(b) loading a nanoliter volume of fluid comprising a liquid material from a fluid source onto the end of the vesicles of the pin assembly;

(c) [without contacting the surface with the vesicle,] disposing the pin assembly to align the vesicles at a first set of locations adjacent to a surface of the substrate without contacting the surface with the vesicles;

(d) contacting the loaded fluid to the surface of the substrate aligned with the vesicles, whereby an array of material on the surface of [a] the substrate is formed; and

(e) analyzing the array of material on the surface of the substrate by mass spectrometry.

73. (Amended) A method of claim 70, wherein the [solvent] fluid comprises a matrix material for mass [spectroscopy] spectrometry.

76. (Amended) A method of claim 70, wherein the [material of the solvent] fluid comprises an analyte material.

79. (Amended) A method of claim 70, wherein the [material of the solvent] fluid comprises a mixture of analyte material and matrix material.

87. (Amended) The method of claim 1, wherein the vesicle is part of an assembly of vesicle elements, wherein each of vesicle comprises an interior chamber holding nanoliter volumes of fluid.